



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,466	03/01/2004	Stephen P. Dulac	PD-202097	9945

7590 10/10/2007
Hughes Electronics Corporation
Patent Docket Administration
Bldg. 001, M/S A109
PO Box 956
El Segundo, CA 90245-0956

EXAMINER

LOUIE, OSCAR A

ART UNIT	PAPER NUMBER
----------	--------------

2136

MAIL DATE	DELIVERY MODE
-----------	---------------

10/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

mn

Office Action Summary	Application No. 10/790,466	Applicant(s) DULAC, STEPHEN P.	
	Examiner Oscar A. Louie	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/07; 06/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This final action is in response to the amendment filed on 07/03/2007. The examiner acknowledges the applicant's amendments and newly added claims. In light of the applicant's amendments, the examiner hereby withdraws his Specification Objections in regards to the abstract. Claims 1-19 are pending and have been considered as follows.

Claim Objections

1. Claims 17-19 are objected to because of the following informalities:
 - The examiner notes that the applicant is required to distinctly locate the location of support from the disclosure in respect to each newly added claim in order to verify that new subject matter has not been added. The location of the supporting disclosure may be recited using any combination of: paragraph, column, line number as appropriate for showing the support for each respective newly added claim (i.e. "...support for Claim 17 may be found in the disclosure in column 14 lines 1-6..." or "...support for Claim 17 may be found in paragraph 0013 lines 4-7..."). Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szymanski (US-6148081-A) in view of Liao et al ("The Split and Merge Protocol for Interactive Video-on-Demand") and in further view of Spies (US-6055314-A).

Claim 1:

Szymanski discloses a method of providing a video program in response to a demand by a subscriber comprising,

- "delivering a first unencrypted portion of at least one video program available for viewing on demand," (i.e. "The interactive television signal includes an interactive portion consisting of application code or control information, as well as an audio-video portion consisting of a television program") [Szymanski column 1 lines 32-35]
- "storing the first unencrypted portion of the at least one video program as unencrypted data on a Digital Video Recorder (DVR)," (i.e. "The set-top box receives the signal transmitted by the broadcast service provider, separates the interactive portion from the audio-video portion and decompresses the respective portions of the signal") [Szymanski column 1 lines 43-47],

Art Unit: 2136

- “offering the video program for purchase by the subscriber,” (i.e. “the carousel may comprise an electronic commerce application which allows interactive television users to make purchases via credit card transactions”) [Szymanski column 9 lines 10-13],
- “accepting a subscriber demand to purchase the complete video program,” (i.e. “The credential can be created by secure means so that it can be determined at run time whether the credential was in fact created by the producer of the credit card application (which may be referred to as the “grantor carousel”)”) [Szymanski column 9 lines 26-30],

but Szymanski does not disclose,

- “retrieving the stored first unencrypted portion of the at least one video program after accepting a subscriber demand to purchase the complete video program”
- “authorizing capture and decryption of a remaining portion of purchased video program”
- “switching from the stored first unencrypted portion of the at least one video program to the remaining portion of the purchased video program”

However, Liao et al does disclose a method of providing a video program in response to a demand by a subscriber as in Szymanski above further comprising,

- “retrieving the stored first unencrypted portion of the at least one video program after accepting a subscriber demand to purchase the complete video program” (i.e. “With VoD services, customers may select programs from massive, remote video archives, view them when they wish, and interact with the programs using VCR-like functions, such as fast forward and rewind” [Liao et al page 51].

- “switching from the stored first unencrypted portion of the at least one video program to the remaining portion of the purchased video program” (i.e. “When a user in a batch initiates a user interaction, the protocol splits off the interactive user from the original batch and temporarily assigns that user to a new video stream”) [Liao et al page 52].

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to include “retrieving the stored first unencrypted portion of the at least one video program after accepting a subscriber demand to purchase the complete video program” and “switching from the stored first unencrypted portion of the at least one video program to the remaining portion of the purchased video program” in the invention as disclosed by Szymanski for the purposes of being able to play the program content as requested by a subscriber.

Liao et al does not disclose,

- “authorizing capture and decryption of a remaining portion of purchased video program”

However, Spies does disclose a method of providing a video program in response to a demand by a subscriber as in Szymanski and Liao et al above further comprising,

- “authorizing capture and decryption of a remaining portion of purchased video program” (i.e. “The video content provider 22 maintains a video program storage 30 which keeps the video content programs and a program keys database 32 which stores cryptographic program keys that correspond to associated video content programs. There is one program key for each video content program”) [Spies column 5 lines 14-19].

Art Unit: 2136

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include the features of Szymanski, "delivering a first unencrypted portion of at least one video program available for viewing on demand," "storing the first unencrypted portion of the at least one video program as unencrypted data on a Digital Video Recorder (DVR)," "offering the video program for purchase by the subscriber," and "accepting a subscriber demand to purchase the complete video program" with the features of Liao et al, "retrieving the stored first unencrypted portion of the at least one video program after accepting a subscriber demand to purchase the complete video program" and "switching from the stored first unencrypted portion of the at least one video program to the remaining portion of the purchased video program" with the features of Spies "authorizing capture and decryption of a remaining portion of purchased video program" for the purposes of securely accessing the program content that the subscriber requested and purchased.

Claim 2:

Szymanski, Spies, and Liao et al disclose a method of providing a video program in response to a demand by a subscriber as in Claim 1 above further comprising,

- "delivering a portion of at least one video program on a hidden channel" (i.e. "In addition to the broadcast channel between the broadcast station and receiving station, there may be other channels, such as a modem channel (which may also be referred to as an http, or hypertext transfer protocol, channel") [Szymanski column 5 lines 43-47].

Art Unit: 2136

Claim 3:

Szymanski, Spies, and Liao et al disclose a method of providing a video program in response to a demand by a subscriber as in Claim 1 above further comprising,

- “the remaining portion containing less than all of the program and including at least the portion not stored in the first portion” (i.e. “Batching2 can reduce the per-user video delivery cost. (Batching here does not necessarily mean waiting a certain amount of time before serving user requests—it simply means resource sharing.)”) [Liao et al page 51].

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant’s invention to include “the remaining portion containing less than all of the program and including at least the portion not stored in the first portion” in the invention as disclosed above by Szymanski, Spies, and Liao et al since it would have been obvious for the remaining portion of any split portion to be less than the whole of two split portions together and not be a part of the first portion since the remaining portion is not the first portion.

Claim 4:

Szymanski, Spies, and Liao et al disclose a method of providing a video program in response to a demand by a subscriber as in Claim 1 above further comprising,

“switching to the remaining portion at one of a plurality of predetermined transition points” (i.e. “Split and Merge (SAM) refers to the split and merge operations incurred when each user performs user interactions.”) [Liao et al page 51].

Art Unit: 2136

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to include "switching to the remaining portion at one of a plurality of predetermined transition points" in the invention as disclosed above by Szymanski, Spies, and Liao et al for the purposes of providing non-interrupted program interaction.

Claim 5:

Szymanski discloses a method for purchasing a program on demand comprising,

- "sending a first unencrypted portion of the program for purchase to a subscriber's digital video recorder," (i.e. "The interactive television signal includes an interactive portion consisting of application code or control information, as well as an audio-video portion consisting of a television program") [Szymanski column 1 lines 32-35]
- "storing the first unencrypted portion of the at least one program for purchase on the subscriber's digital video recorder," (i.e. "The set-top box receives the signal transmitted by the broadcast service provider, separates the interactive portion from the audio-video portion and decompresses the respective portions of the signal") [Szymanski column 1 lines 43-47],
- "offering at least one program for purchase," (i.e. "the carousel may comprise an electronic commerce application which allows interactive television users to make purchases via credit card transactions") [Szymanski column 9 lines 10-13],
- "selecting the at least one program for purchase," (i.e. "The credential can be created by secure means so that it can be determined at run time whether the credential was in fact created by the producer of the credit card application (which may be referred to as the "grantor carousel")") [Szymanski column 9 lines 26-30],

- “splicing the first unencrypted portion of the selected program with the remaining portion of the selected video to form a complete program” (i.e. “Set-top box 22 processes the packetized signal to reconstruct the television programs and interactive applications embodied in the signal. The reconstructed applications are executed in the set-top box, while the reconstructed television programs are passed to the television, where they are displayed”) [Szymanski column 5 lines 35-40].
- “storing the complete program on the digital video recorder for a predetermined period of time” (i.e. “The set-top box then reconstructs the modules from the corresponding packets and reconstructs the television programs from the packets containing the associated audio and video data. As explained above, the modules are stored in RAM 37, where they are available for use by applications executing in the control unit 35”) [Szymanski column 8 lines 35-40].

but Szymanski does not disclose,

- “retrieving the stored first unencrypted portion of the selected at least one program for purchase for viewing by the subscriber”
- “sending at least the remaining portion of the selected at least one program to the digital video recorder”
- “authorizing storage and viewing by the subscriber of the selected at least one program”

However, Liao et al does disclose discloses a method for purchasing a program on demand as in Szymanski above further comprising,

- “retrieving the stored first unencrypted portion of the selected at least one program for purchase for viewing by the subscriber” (i.e. “With VoD services, customers may select

programs from massive, remote video archives, view them when they wish, and interact with the programs using VCR-like functions, such as fast forward and rewind“ [Liao et al page 51].

- “sending at least the remaining portion of the selected at least one program to the digital video recorder” (i.e. “When a user in a batch initiates a user interaction, the protocol splits off the interactive user from the original batch and temporarily assigns that user to a new video stream”) [Liao et al page 52].

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant’s invention to include “retrieving the stored first unencrypted portion of the selected at least one program for purchase for viewing by the subscriber” and “sending at least the remaining portion of the selected at least one program to the digital video recorder” in the invention as disclosed by Szymanski for the purposes of providing the program content requested by a subscriber.

Liao et al does not disclose,

- “authorizing storage and viewing by the subscriber of the selected at least one program”

However, Spies does disclose a method for purchasing a program on demand as in Szymanski and Liao et al above further comprising,

- “authorizing storage and viewing by the subscriber of the selected at least one program”
(i.e. “For example, the purchaser 26 might insert the IC card 50 into the purchaser's own computing unit (not shown in this figure) resident at his own home which is interconnected to the video merchant computing unit 44 via a distribution network”)
[Spies column 6 lines 35-39].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include the features of Szymanski, "sending a first unencrypted portion of the program for purchase to a subscriber's digital video recorder," "storing the first unencrypted portion of the at least one program for purchase on the subscriber's digital video recorder," "offering at least one program for purchase," "selecting the at least one program for purchase," "splicing the first unencrypted portion of the selected program with the remaining portion of the selected video to form a complete program," and "storing the complete program on the digital video recorder for a predetermined period of time" with the features of Liao et al, "retrieving the stored first unencrypted portion of the selected at least one program for purchase for viewing by the subscriber" and "sending at least the remaining portion of the selected at least one program to the digital video recorder" with the feature of Spies "authorizing storage and viewing by the subscriber of the selected at least one program" for the purposes of providing access to the program content and security to permit access to the content that they requested and purchased legitimately.

Claim 6:

Szymanski, Spies, and Liao et al disclose a method of providing a video program in response to a demand by a subscriber as in Claim 5 above further comprising,

- "sending the first unencrypted portion of a program for purchase over a channel that is hidden to the subscriber but recognized by the digital video recorder" (i.e. "In addition to the broadcast channel between the broadcast station and receiving station, there may be other channels, such as a modem channel (which may also be referred to as an http, or hypertext transfer protocol, channel)") [Szymanski column 5 lines 43-47].

Claim 7:

Szymanski, Spies, and Liao et al disclose a method of providing a video program in response to a demand by a subscriber as in Claim 6 above further comprising,

- “sending information about the program in addition to the first unencrypted-portion” (i.e. “Upon selection, the STB 230 sends a request for information on the selected programs. The headend server 208 retrieves the information from program information database 216 and transmits the information over the network 206 to the requesting STB 230”) [Spies column 15 lines 32-36].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include “sending information about the program in addition to the first unencrypted-portion” in the invention as disclosed above by Szymanski, Spies, and Liao et al for the purposes of providing program content information prior to a request and purchase of the entire content.

Claim 8:

Szymanski, Spies, and Liao et al disclose a method of providing a video program in response to a demand by a subscriber as in Claim 7 above further comprising,

- “promotional video, additional description about the program and program reviews” (i.e. “The program information might include title, cast, director, rating, brief description, whether it is available in closed caption or another language, price, and so on. The subscriber can review the information, request additional information on the programs or information on different programs, order a program, or exit the VOD application”) [Spies column 15 lines 37-42].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include "promotional video, additional description about the program and program reviews" in the invention as disclosed above by Szymanski, Spies, and Liao et al for the purposes of providing detailed program content information prior to a request and purchase of the entire content.

Claim 9:

Szymanski, Spies, and Liao et al disclose a method of providing a video program in response to a demand by a subscriber as in Claim 8 above further comprising,

- "offering a free preview of a program from the stored first unencrypted portion of the at least one program" (i.e. "The program information might include title, cast, director, rating, brief description, whether it is available in closed caption or another language, price, and so on. The subscriber can review the information, request additional information on the programs or information on different programs, order a program, or exit the VOD application") [Spies column 15 lines 37-42].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include "offering a free preview of a program from the stored first unencrypted portion of the at least one program" in the invention as disclosed above by Szymanski, Spies, and Liao et al for the purposes of providing detailed program content information prior to a request and purchase of the entire content.

Art Unit: 2136

Claim 10:

Szymanski, Spies, and Liao et al disclose a method of providing a video program in response to a demand by a subscriber as in Claim 6 above further comprising,

- “delivering the inserted triggers with the program” (i.e. “Split and Merge (SAM)”) [Liao et al page 52].
- “identifying the inserted triggers at the digital video recorder for switching from the stored first unencrypted portion of the program to the remaining portion of the program” (i.e. “Split and Merge (SAM)”) [Liao et al page 52].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant’s invention to include “delivering the inserted triggers with the program,” and “identifying the inserted triggers at the digital video recorder for switching from the stored first unencrypted portion of the program to the remaining portion of the program” in the invention as disclosed above by Szymanski, Spies, and Liao et al since it is inherent that the set-top box would require the delivery and identification of some form of instructions or “triggers” to perform specific functions (i.e. “Split and Merge”) [Liao et al page 52].

Claim 11:

Szymanski, Spies, and Liao et al disclose a method of providing a video program in response to a demand by a subscriber as in Claim 10 above further comprising,

- “the triggers are delivered with the video” (i.e. “Split and Merge (SAM)”) [Liao et al page 52].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include "the triggers are delivered with the video" in the invention as disclosed above by Szymanski, Spies, and Liao et al since it is inherent that the set-top box would require the delivery of some form of instructions or "triggers" to perform specific functions (i.e. "Split and Merge") [Liao et al page 52].

Claim 12:

Szymanski, Spies, and Liao et al disclose a method of providing a video program in response to a demand by a subscriber as in Claim 10 above further comprising,

- "triggers are included with a service's metadata" (i.e. "Split and Merge (SAM)") [Liao et al page 52].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include "triggers are included with a service's metadata" in the invention as disclosed above by Szymanski, Spies, and Liao et al since it is inherent that the set-top box would require there to be some form of instructions or "triggers" included in the service's metadata in order to perform specific functions (i.e. "Split and Merge") [Liao et al page 52].

3. Claims 13 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szymanski (US-6148081-A) in view of Liao et al ("The Split and Merge Protocol for Interactive Video-on-Demand") in further view of Ma et al ("Multicast Video on Demand Services").

Claim 13:

Szymanski discloses an apparatus for providing a program in response to a subscriber demand comprising,

- “a digital video recorder being an integrated receiver/decoder having digital video recording capabilities” (i.e. “modularity may include conserving the limited amount of memory in a set-top box which can be used for interactive applications, reducing the time required to download applications from a broadcast station to a set-top box or reducing the amount of application code which must be written by allowing modules to be shared”) [Szymanski column 2 lines 11-17].
- “a first unencrypted portion of at least one program stored on the digital video recorder” (i.e. “The set-top box receives the signal transmitted by the broadcast service provider, separates the interactive portion from the audio-video portion and decompresses the respective portions of the signal”) [Szymanski column 1 lines 43-47].
- “an offer to purchase at least one program” (i.e. “the carousel may comprise an electronic commerce application which allows interactive television users to make purchases via credit card transactions”) [Szymanski column 9 lines 10-13].
- “means for accepting the offer to purchase the at least one program” (i.e. “The credential can be created by secure means so that it can be determined at run time whether the credential was in fact created by the producer of the credit card application (which may be referred to as the “grantor carousel”)”) [Szymanski column 9 lines 26-30].
- “means for splicing the first unencrypted portion of the at least one program with the remaining portion of the program to define a complete program” (i.e. “Set-top box 22

processes the packetized signal to reconstruct the television programs and interactive applications embodied in the signal. The reconstructed applications are executed in the set-top box, while the reconstructed television programs are passed to the television, where they are displayed. The interactive applications may generate graphics or audio which are combined with the television program prior to being displayed”) [Szymanski column 5 lines 35-42].

but Szymanski does not disclose,

- “means for retrieving the first unencrypted portion from storage while retrieving the remaining portion of the program on the digital video recorder”
- “the complete program stored on the digital video recorder”

However, Liao et al does disclose an apparatus for providing a program in response to a subscriber demand as in Szymanski above further comprising,

- “means for retrieving the first unencrypted portion from storage while retrieving the remaining portion of the program on the digital video recorder” (i.e. “With VoD services, customers may select programs from massive, remote video archives, view them when they wish, and interact with the programs using VCR-like functions, such as fast forward and rewind”) [Liao et al page 51].

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant’s invention to include “means for retrieving the first unencrypted portion from storage while retrieving the remaining portion of the program on the digital video recorder” in the invention as disclosed by Szymanski for the purposes of obtaining the requested program content.

Liao et al does not disclose,

- “the complete program stored on the digital video recorder”.

However, Ma et al does disclose an apparatus for providing a program in response to a subscriber demand as in Szymanski and Liao et al above further comprising,

- “the complete program stored on the digital video recorder” (i.e. “The client's STB, from software perspectives, generally contains a main control thread, video stream receiver threads and a video player thread”) [Ma et al page 37 column 2 lines 5-7].

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to include “the complete program stored on the digital video recorder” in the invention as disclosed above by Szymanski and Liao et al for the purposes of having a storage location to retrieve the program content from.

Claim 16:

Szymanski, Liao et al, and Ma et al disclose an apparatus for providing a program in response to a subscriber demand as in Claim 13 above further comprising,

- “triggers inserted into the remaining portion at predetermined transition points for identification by the digital video recorder as a point of transition between the first unencrypted portion and the remaining portion” (i.e. “Split and Merge (SAM)”) [Liao et al page 2].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention would have found it to be obvious to include “triggers inserted into the remaining portion at predetermined transition points for identification by the digital video recorder as a point of transition between the first unencrypted portion and the remaining portion”

Art Unit: 2136

in the invention as disclosed above by Szymanski and Ma et al since it is inherent that the set-top box would require there to be some form of instructions or “triggers” included in the service’s metadata in order to perform specific functions (i.e. “Split and Merge”) [Liao et al page 52].

4. Claims 14 & 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szymanski (US-6148081-A) in view of Liao et al (“The Split and Merge Protocol for Interactive Video-on-Demand”) in further view of Ma et al (“Multicast Video on Demand Services”) and in further view of Spies (US-6055314-A).

Claim 14:

Szymanski, Liao et al, and Ma et al disclose an apparatus for providing a program in response to a subscriber demand as in Claim 13 above but does not disclose,

- “a program guide stored on the at least one digital video recorder”

However, Spies does disclose “a program guide stored on the at least one digital video recorder” (i.e. “Each STB 230 is configured to run a video-on-demand (VOD) application (step 304). As noted above, VOD is like having a virtual video store in the subscriber’s home. The VOD application presents a user interface which permits the subscriber to browse a wide selection of programs (movies, video games, TV shows, educational features, etc.) and rent the program they want to see immediately from their own TV sets”) [Spies column 15 lines 16-23].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant’s invention to include “a program guide stored on the at least one digital video recorder” in the invention as disclosed above by Szymanski, Liao et al, and Ma et al for the purposes of alleviating the need to store and access everything remotely, as well as, provide quicker menu access for the subscriber.

Claim 15:

Szymanski, Spies, Liao et al., and Ma et al. disclose an apparatus for providing a program in response to a subscriber demand as in Claim 14 above further comprising,

- “a channel hidden from the program guide but known by the digital video recorder for sending the first unencrypted portion to the digital video recorder for storage thereon” (i.e. “In addition to the broadcast channel between the broadcast station and receiving station, there may be other channels, such as a modem channel (which may also be referred to as an http, or hypertext transfer protocol, channel”) [Szymanski column 5 lines 43-47].

5. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szymanski (US-6148081-A) in view of Liao et al. (“The Split and Merge Protocol for Interactive Video-on-Demand”) in further view of Ma et al. (“Multicast Video on Demand Services”) and in further view of Ullrich et al. (US-5583937-A).

Claim 17:

Szymanski, Liao et al., and Ma et al. disclose an apparatus for providing a program in response to a subscriber demand, as in Claim 13 above, but do not disclose,

- “wherein the at least a portion of the program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated from a previous transmission by a predetermined period of time”

however, Ullrich et al. do disclose,

- “In order to provide near video on demand (NVOD) services, the a single program or performance, labeled as program X in FIG. 3, is exhibited simultaneously on each of channels 7073. While each exhibition is simultaneously broadcast on transmission system 13, the exhibitions are offset or staggered in time relative to one another” [column 7 lines 64-67 & column 8 lines 1-2];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “wherein the at least a portion of the program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated from a previous transmission by a predetermined period of time,” in the invention as disclosed by Szymanski, Liao et al., and Ma et al. for the purposes of the exhibition of different programming.

Claim 18:

Szymanski, Liao et al., and Ma et al. disclose an apparatus for providing a program in response to a subscriber demand, as in Claim 17 above, but do not disclose,

- “wherein the at least a portion of the program consists of the remaining portion of the program”

however, Ullrich et al. do disclose,

- “In the example depicted in FIG. 3, program X has a run length of around 110 minutes and a repeat factor of 120 minutes. Thus, on each of channels 70-73, program X is exhibited for 110 minutes. When program X finishes, promotional programming is exhibited for 10 minutes” [column 8 lines 3-7];

Art Unit: 2136

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "wherein the at least a portion of the program consists of the remaining portion of the program," in the invention as disclosed by Szymanski, Liao et al., and Ma et al. for the purposes of repeating program X every 120 minutes continues indefinitely, until overall exhibition plans call for the exhibition of different programming.

Claim 19:

Szymanski, Liao et al., and Ma et al. disclose an apparatus for providing a program in response to a subscriber demand, as in Claim 17 above, but do not disclose,

- "wherein the at least a portion of the program comprises the entire program"

however, Ullrich et al. do disclose,

- "In the example depicted in FIG. 3, program X has a run length of around 110 minutes and a repeat factor of 120 minutes. Thus, on each of channels 70-73, program X is exhibited for 110 minutes. When program X finishes, promotional programming is exhibited for 10 minutes" [column 8 lines 3-7];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "wherein the at least a portion of the program comprises the entire program," in the invention as disclosed by Szymanski, Liao et al., and Ma et al. for the purposes of repeating program X every 120 minutes continues indefinitely, until overall exhibition plans call for the exhibition of different programming.

Response to Arguments

6. Applicant's arguments filed 07/03/2007 have been fully considered but they are not persuasive. Applicant's arguments regarding independent Claims 1, 5, & 13 have been considered above in the standing 35 U.S.C. 103(a) rejections and are non-persuasive.

Regarding Claims 1 & 5:

- The applicant's arguments recite, "Szymanski discloses nothing at all about video on demand...it is directed to interactive television" and "Szymanski does not disclose storing anything in a DVR" and "this does not disclose offering the video program" and "Szymanski reference does not appear to disclose anything even remotely related to a subscriber demand to purchase the complete video program" and "data received in the Liao reference is not locally stored" and "a system in which the user starts by playing the program locally (certainly non-batch) and switches to what might be analyzed as a batch video stream" and "Spies does not disclose the notion of a storing an unencrypted video portion on a DVR and authorizing the capture and decryption of the remaining (decrypted) portion upon user command." The examiner disagrees as "interactive television" is a form of video on demand, where it is understood that the DVR/set top box stores part of the video program in memory (i.e. "RAM may include memory units which are static, dynamic, volatile or non-volatile, as required to support the functions of the set top box") [Szymanski column 6 lines 6-9] prior to transmitting it for display (i.e. "the term set top box is used herein, it is understood that this term refers to any receiver or processing unit for receiving and processing a transmitted signal and conveying the processed signal to a television or other monitor") [Szymanski column 6 lines 20-25]. In

addition, it is implied from Szymanski that interactive television would include making purchases which include video content (i.e. “an electronic commerce application which allows interactive television users to make purchases via credit card transactions”; “The credential can be created by secure means so that it can be determined at run time whether the credential was in fact created by the producer of the credit card application”) [Szymanski column 9 lines 10-13 & 26-30] as the creation of credentials for a credit card application would imply the request of a purchase and an electronic commerce application would offer/allow users to make purchases based on a selection.

Regarding Claim 13:

- The applicant's arguments recite, “Szymanski does not disclose storing anything in a DVR” and “Szymanski does not disclose an offer to purchase at least one program” and “Szymanski also fails to disclose a means for splicing a first encrypted portion of the at least one program with the remaining portion of the program to define a complete program” and “Szymanski reference does not disclose means for retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder” and “Liao does not disclose a digital video recorder at all... does not disclose retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder.” However, the examiner disagrees as “interactive television” is a form of video on demand, where it is understood that the DVR/set top box stores part of the video program in memory (i.e. “RAM may include memory units which are static, dynamic, volatile or non-volatile, as required to support the functions of the set top box”) [Szymanski column 6 lines 6-9]

prior to transmitting it for display (i.e. "the term set top box is used herein, it is understood that this term refers to any receiver or processing unit for receiving and processing a transmitted signal and conveying the processed signal to a television or other monitor") [Szymanski column 6 lines 20-25]. In addition, it is implied from Szymanski that interactive television would include making purchases which include video content (i.e. "an electronic commerce application which allows interactive television users to make purchases via credit card transactions"; "The credential can be created by secure means so that it can be determined at run time whether the credential was in fact created by the producer of the credit card application") [Szymanski column 9 lines 10-13 & 26-30] as the creation of credentials for a credit card application would imply the request of a purchase and an electronic commerce application would offer/allow users to make purchases based on a selection.

Conclusion

7. Applicant's arguments filed 07/03/2007 have been fully considered but they are not persuasive.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Oscar Louie whose telephone number is 571-270-1684. The examiner can normally be reached Monday through Thursday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami, can be reached at 571-272-4195. The fax phone number for Formal or Official faxes to Technology Center 2100 is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OAL
10/02/2007

Nasser Moazzami
Supervisory Patent Examiner


10/2/07